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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,040	08/13/2001	Christopher Robert Eccles	13121US01	9447

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EXAMINER	
PALABRICA, RICARDO J	

ART UNIT	PAPER NUMBER
3641	

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,040	ECCLES, CHRISTOPHER ROBERT	
	Examiner	Art Unit	
	Rick Palabrica	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-36* is/are pending in the application.

4a) Of the above claim(s) *5,20,21,23,30 and 33-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4,6-19,22,24-26,28,29,31,32 and 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *16*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Applicant's Request for Continued Examination (RCE) in Paper No. 17 and amendment in Paper No. 18, are acknowledged. The amendment added new claim 36 and traversed the rejection of claims in Office Action dated May 19, 2003.

2. Applicant traversed the rejection of claims under 35 U.S.C. 101 by submitting: a) two reports that allegedly support the method for energy production described in the present application; and b) copies of two letters to the European Patent Office explaining these two reports. Applicant's arguments have been fully considered but they are not persuasive.

The Examiner notes that the letters essentially summarize the main points already contained in the two reports. Therefore, the Examiner's statements regarding the two reports also pertain to said letters.

The reports appear to be internal reports that have limited distribution and have not been published, for example, in a technical journal with wide circulation. There is no showing that they have been subjected to peer review in the same manner as articles submitted for publication in said journals. Therefore, the reliability of the results, including their repeatability, as well as the validity of conclusions in these reports may not have a firm basis. Additionally, the applicability of the results in these reports to the claimed invention is also questionable.

The report by Riley ("Evaluation of Thermal Energy Cell") describes an electrochemical cell that is clearly different from the claimed invention. For example,

Riley shows in his Fig. 1 a single container cell whereas the applicant discloses in his Fig. 1 a dual-container cell. Riley shows a vent penetrating the interior of his cell whereas the applicant does not disclose such structure. Riley does not provide dimensions for either the tungsten cathode or the platinum anode unlike the applicant. The electrolyte concentration in Riley is different from that of the applicant's. Such physical dimensions of the electrodes are critical parameters to the performance of the apparatus and, without this information, there is no adequate basis for stating any similarity between Riley's and the applicant's apparatus.

Daddi et al. ("Report on Experimental and Theoretical Results Confirming the Existence of More Compressed Atomic Structures") states in the conclusion that the aim of their report "was to give scientific support to the patent application of Gardner Watts relating to the invention of a new device realized for energy generation." Daddi et al. does not even describe any specific apparatus to which their discussion of the compressed atomic phenomenon applies. Assuming for the sake of argument that Daddi et al. is providing support to a patent application that is identical to the apparatus described in Riley, which is merely speculative, this apparatus is different from the claimed invention, as discussed above.

The Remarks section in Paper No. 18 did not adequately address the specific reasons for the Examiner's rejection of claims set forth in section 3 of the Final Office Action dated May 19, 2003. For example, Applicant did not address the rejection based on his own statements in the specification that casts doubts on the existence of a definitive, operating embodiment for the invention. Even the specific reasons for

rejection in section 5 of the 9/23/02 Non-Final Rejection have not been adequately addressed. Accordingly, said reasons are incorporated again in this Office Action.

Applicant alleges that the Sharon Begley article "rebutted" the articles cited by the Examiner regarding the "cold fusion" concept of Fleishmann and Pons (F and P). The Examiner disagrees. First, Applicant did not identify the specific aspects of the articles cited by the Examiner that are allegedly rebutted in the article. Second, there are others who support an opposite view to Sharon Begley, i.e., some of the 58 articles in Google on the subject 10th International Conference on Cold Fusion, e.g., Marcus S. Turner's remarks (Reference U).

Applicant also alleges that F and P do not teach the use of a catalyst to initiate transitions of hydrogen and/or deuterium atoms to a sub-ground energy state. The Examiner disagrees. Applicant himself admits that titanium is a suitable catalyst (see specification on page 9, penultimate paragraph). F and P disclose that titanium is one of the preferred metals in their invention (see page 6 of WO 90/10935). Some titanium atoms will inherently be dissolved in the deuterated water, and they cannot be prevented from acting in the same manner as the catalyst in the claimed invention, i.e., to effect the said hydrogen/deuterium transition.

3. Applicant traversed the rejection of claims under 35 USC 102(b) and 103(a) based on Omori (JP 3-150494) or Kubota (JP 2-275397) or Omori (JP 3-68894). Applicant's arguments have been fully considered but they are not persuasive.

Either one of Omori ('494) or Omori ('894) discloses the use of titanium electrodes (e.g. see page 8 of Omori ('494) or page 9 of Omori ('894)). Kubota also discloses the use of a titanium electrode (see page 6). Therefore any one of the three references discloses the catalyst in the claimed invention. Again, some titanium atoms will inherently be dissolved in the deuterated water, and they cannot be prevented from acting in the same manner as the catalyst in the claimed invention, i.e., to effect the said hydrogen/deuterium transition.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 2-4, 6-19, 22, 24-26, 28, 29, 31, 32 and 36 are rejected under 35 U.S.C. 101 because the claimed invention as disclosed is inoperative and therefore lacks utility. The reasons that the invention as disclosed is inoperative are the same as the reasons set forth in section 3 of the 5/19/03 Office Action and section 2 above, and those reasons are accordingly incorporated herein.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2-4, 6-19, 22, 24-26, 28, 29, 31, 32 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The reasons are the same as that given in section 4 above, which reasons are incorporated herein.

6. Claims 2-4, 6-19, 22, 24-26, 28, 29, 31, 32 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are vague and indefinite, and their metes and bounds cannot be determined for the reasons given in section 4 above, which reasons are incorporated herein.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 2, 4, 6, 9, 10, 11, 13, 22, 24, 25, 28, 29 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by either one of Omori (JP 3-150494) or Kubota (JP 2-275397). Either one of Omori or Kubota discloses a nuclear fusion device and method for releasing energy by providing an electrolyte having a titanium catalyst and generating a plasma discharge underwater by a voltage of at least 20 Kv.

For the benefit of the applicant, Omori (JP 3-68894) also anticipates the claims.

8. Claims 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Omori who further discloses applying an intermittent plasma discharge using a capacitance circuit.

9. Claims 14, 15 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubota who further discloses the use of a heat exchanger.

As to claim 36, the applicant admits that titanium is a catalyst that is capable of absorbing (m*27.2) eV (see page 9 of the specification). Kubota discloses the use of titanium. See also section 3 above.

Kubota also uses a voltage as high as 2 million volts (see page 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 16, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Omori or Kubota, in view of either one of Yamazaki (EP 0393461) or Van Noorden (NL 8902-962-A). Either one of Omori or Kubota discloses the applicant's claims except for the use of a magnetic field. Either one of Yamazaki or Van Noorden teaches the application of a magnetic field in nuclear fusion to enhance the process.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, as disclosed by Omori or Kubota, by the teaching of either one of Yamazaki or Van Noorden, to include the application of a magnetic field, to gain the advantages thereof (i.e., more effective fusion process), because such modification is no more than the use of a well-known expedient in nuclear fusion art.

11. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Omori. Note that Omori discloses that several schemes for the control circuit are possible, including periodic application of the charge from the capacitors 25 over a prescribed period (e.g., see page 9 of Omori '494). As to the limitation in the claim regarding the

duty cycle, this is a matter of optimization within prior art conditions or through routine experimentation (see MPEP 2144.05 II.A).

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota. As to the limitation in the claim regarding a current density of at least 400,000 A/m^2, this is a matter of optimization within prior art conditions or through routine experimentation (see MPEP 2144.05 II.A). Note that Kubota discloses a voltage that is as high as 2 Million volts.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 703-306-5756. The examiner can normally be reached on 7:00-4:30, Mon-Fri; 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

RJP
December 1, 2003

MICHAEL J. CA
SUPERVISORY PATENT